# MASINDI MUNICIPAL COUNCIL SCHOOLS

## PRIMARY LEAVING MOCK ASSESSMENT, 2024

## MATHEMATICS

*Time Allowed: 2 hours 30 minutes*

| Random No. | | | | | | Personal No. | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

**Candidate's Name:** .....

**Candidate's Signature:** .....

**District ID No:**

| | | |
|---|---|---|
| | | |

**Read the following instructions carefully:**

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has **two** sections: **A** and **B**. Section **A** has **20** questions and Section **B** has **12** questions. The paper has **12 printed pages** altogether.
3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
5. **No calculators** are allowed in examination room.
6. Unnecessary **changes** in your work and hand writing that cannot easily be read may lead to **loss** of marks.
7. Do **not** fill anything in the table indicated: **"For Examiners' Use Only"** and boxes inside the question paper.

| FOR EXAMINERS' USE ONLY | | |
|---|---|---|
| Qn. No. | Marks | EXR'S NO |
| 1 - 5 | | |
| 6 - 10 | | |
| 11 - 15 | | |
| 16 - 20 | | |
| 21 - 22 | | |
| 23 - 24 | | |
| 25 - 26 | | |
| 27 - 28 | | |
| 29 - 30 | | |
| 31 - 32 | | |
| TOTAL | | |

SECTION A : 40 MARKS.

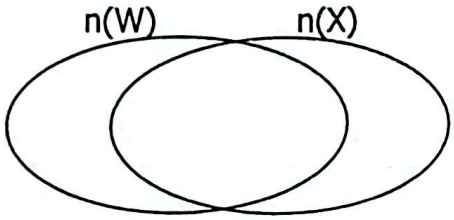
*Answer* **all** *questions in this section.*

*Questions* **1** *to* **20** *carry* **two** *marks each.*

1. Work out:
$$\begin{array}{r} 3740 \\ -440 \\ \hline \\ \hline \end{array}$$

2. Simplify: $3(x-1)-(x-5)$

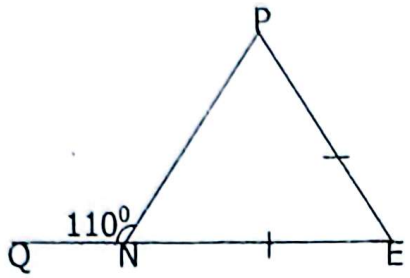
3. Given that set W = {q, u, e, s, t, i, o, n}
X = {o, u, t, s, i, d, e}
Show W U X on the Venn diagram below.




4. Express $0.\dot{8}\dot{1}$ to rational number in its simplest form.

5. A blue band tin of 500gms costs Shs. 2000.
How much will Andrew pay for 4kg of similar tins of blue band?

6. Calculate the size of angle PEN in degrees.

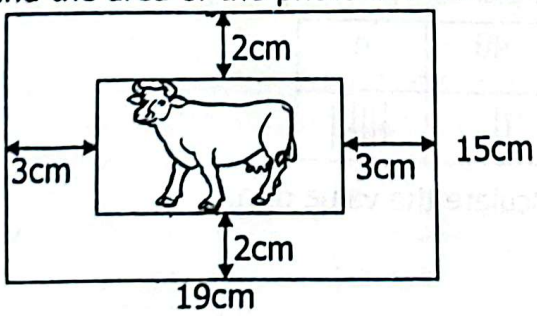



7. Work out the sum of the $4^{th}$ and $6^{th}$ triangular numerals.

8. A teacher gave out two money offers to the best performing candidate in a Mathematics Mock paper as;
   (i) First offer = 7000 US dollars.
   (ii) Second offer = 500 US dollars per day for a fortnight.
   Which of the two is the highest offer?

9. Solve for the missing base t: $21_t = 13_{ten}$.

10. Find the area of the photo in a frame as drawn below.

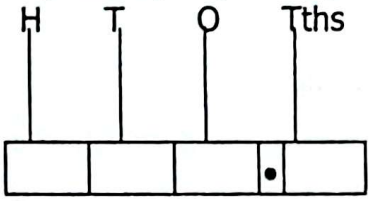





*Turn over*

11. Solve the inequality: $2m - 7 > 2 - m$

12. Show "$(3 \times 10^2) + (1 \times 10^0) + (4 \times 10^{-1})$" on the abacus below.




13. 1 US dollar ($) costs Ug Shs. 3750 at Municipal Forex Bureau.
If a trader has 800 US dollars, how much Ugandan shillings can he get from the Forex Bureau?

14. In a school of 480 pupils, 40% of them are girls and the rest are boys.
How many boys are in the school?

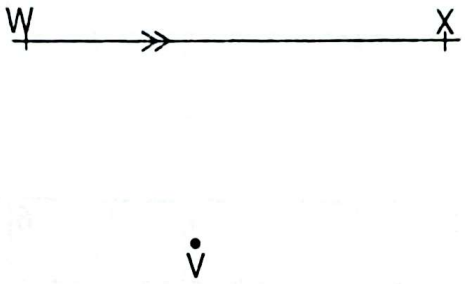
15. The table below shows number of apples picked by some pupils in a week.

| Number of apples | 60 | 70 | 40 | n |
|---|---|---|---|---|
| Number of pupils | \|\|\| | \|\|\| | \|\| | 𝍸\| |

If the mean of all apples picked is 55, calculate the value of n.

16. Work out the value of $\square$ ; $2 \div 3 = \square$ (finite 5)

17. With the help of a ruler, a pencil and a pair of compasses only, construct line YZ through point V parallel to line WX.




18. A school bus departed school at 8 : 15 a.m travelling at a speed of 72km/hr. Express its speed to m/second.

19. The prime factors of N and M are as shown below;
$F_N = \{2_1, 2_2, y, 3_1\}$
$F_M = \{2_1, y, 3_1, 3_2\}$
Find the smallest numeral that is completely divisible by N and M if the Highest Common Factor (HCF) of N and M is 18.

20. The pie-chart below shows how a lady uses her weekly income worth Shs. 180,000. Calculate the value of p in degrees.



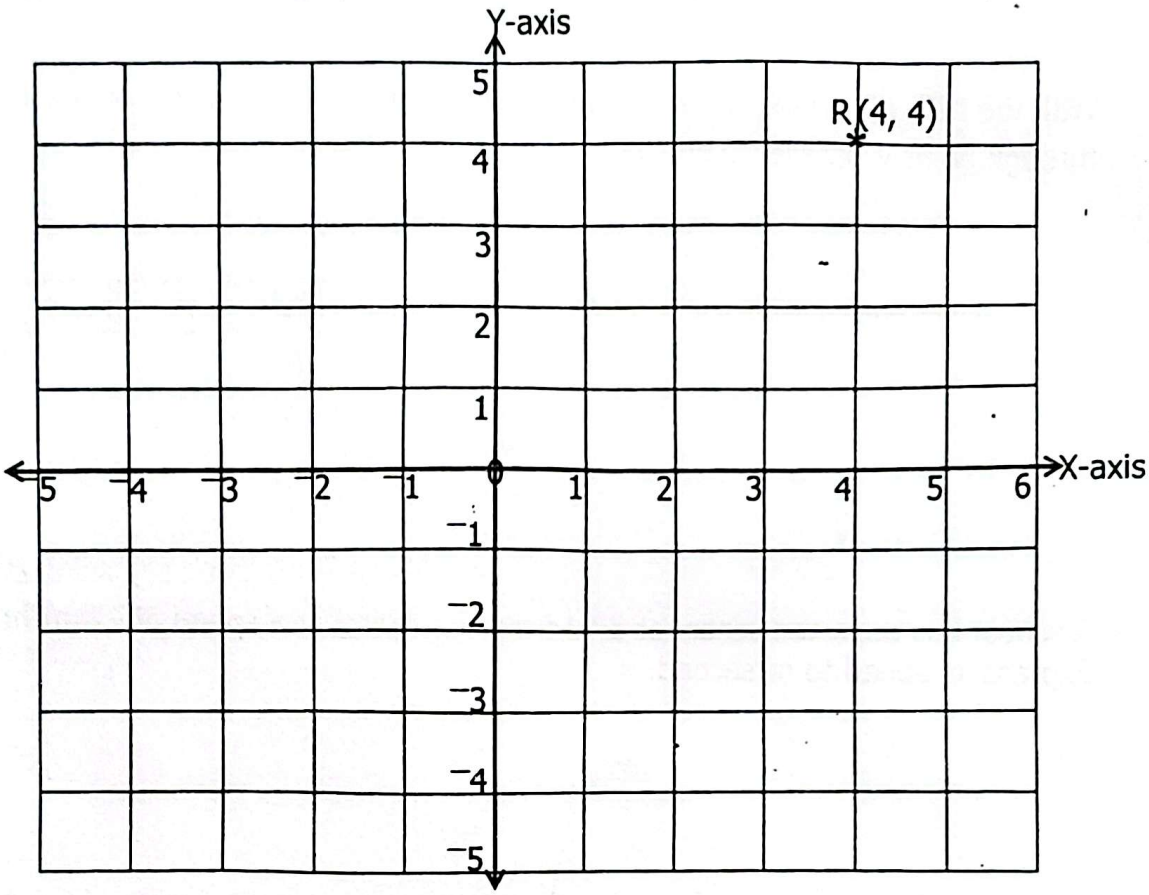

*Turn Over*

## SECTION B : 60 MARKS

*Answer* **all** *questions in this section.*

*Marks for each question are indicated in the brackets.*

21. Use the co-ordinate graph below to answer the questions that follow;




(a) Plot the following co-ordinates on the co-ordinate graph above;
P ($^{-}$4, $^{-}$2), Q (2, $^{-}$2) *(2 marks)*

(b) Find the coordinates for point S so that when PQRS is joined together, it forms a rhombus. *(1 mark)*

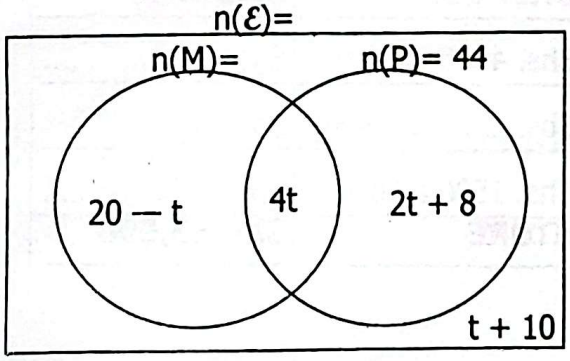
(c ) Show all lines of folding symmetry in the figure formed when PQRS is joined together. *(1 mark)*

22. (a) Write CXCIX in Hindu-Arabic numerals. *(2 marks)*

(b) Express $78.4 \times 10^{-2}$ as a single numeral. *(2 marks)*

(c) The sum of m, m + 2 and m + 4 consecutive odd numerals is 39. Solve for the odd numeral m. *(2 marks)*

23. The Venn diagram below shows candidates who eat matooke (M) and posho (P) in a P.7 class at ST. James P/S.




(a) Solve for the value of t. *(2 marks)*

(b) Find n(ε )= *(2 marks)*

24. A herdsman constructed a circular kraal of diameter 28 metres using poles at a cost of Shs. 3000 per pole.

(a) Work out the area of the kraal. *(2 marks)*

(b) If the poles on the kraal were planted 4 metres apart, how much did he spend on poles altogether? *(3 marks)*

25. (a) Complete John's shopping bill table below correctly. *(4 marks)*

| S/NO | ITEM | QUANTITY | UNIT COST | AMOUNT |
|---|---|---|---|---|
| (i) | Soap | A box of 12 bars | Shs. 4000 @ bar | Shs. ..... |
| (ii) | Salt | 500gms | Shs. .....per kg | Shs. 1000 |
| (iii) | Milk | ..... litres | Shs. 1500 a litre | Shs. ..... |
| (iv) | **TOTAL EXPENDITURE** | | | **Shs. 53,500** |

(b) If John paid Shs. 48,150 for all the items, what percentage discount was he given? *(2 marks)*

26. (a) Find the median of $\frac{1}{3}$ , $\frac{1}{4}$ and $\frac{1}{2}$ *(2 marks)*

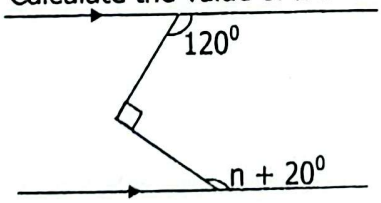
(b) Simplify: $\frac{0.8 \times 0.9}{3.6}$ . *(2 marks)*

(c ) Tom bought 80 shares from a Municipal Sacco at Shs. 5000 per share for a period of $\frac{1}{2}$ a year.
If it generated an interest of Shs. 20,000, work out his interest rate.
*(2 marks)*

27. (a) The interior angle of a regular polygon is $135^0$. How many sides has the polygon? *(2 marks)*

(b) Find the interior angle sum of the polygon. *(2 marks)*

(c ) Calculate the value of n in degrees from the figure below. *(2 marks)*

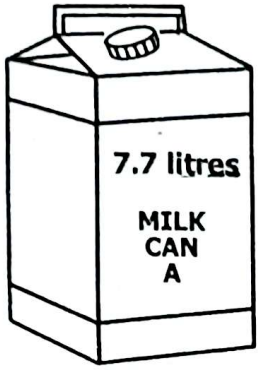


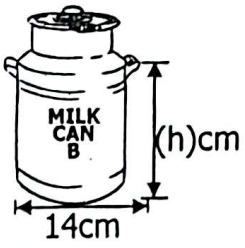
28. (a) Given that a = 3 and h = 4 = p
Find the value of ah — 2p. *(2 marks)*

(b) Solve the equation; $2y^2 + 5 = 41$. *(2 marks)*

29. The ratio of boys to girls in a candidate class is 3 : 5 respectively.
If there are 80 more girls than boys, how many candidates are in the class?
*(4 marks)*

30. Can A has 7.7 litres of milk. All the milk in Can A is collected in 5 small cylindrical Can B of diameter 14cm;




Calculate the height (h) of the small milk Can B. *(5 marks)*

31. A school office is 80 metres West of the staffroom and a library is 60 metres away from the staffroom on a bearing of $225^0$.

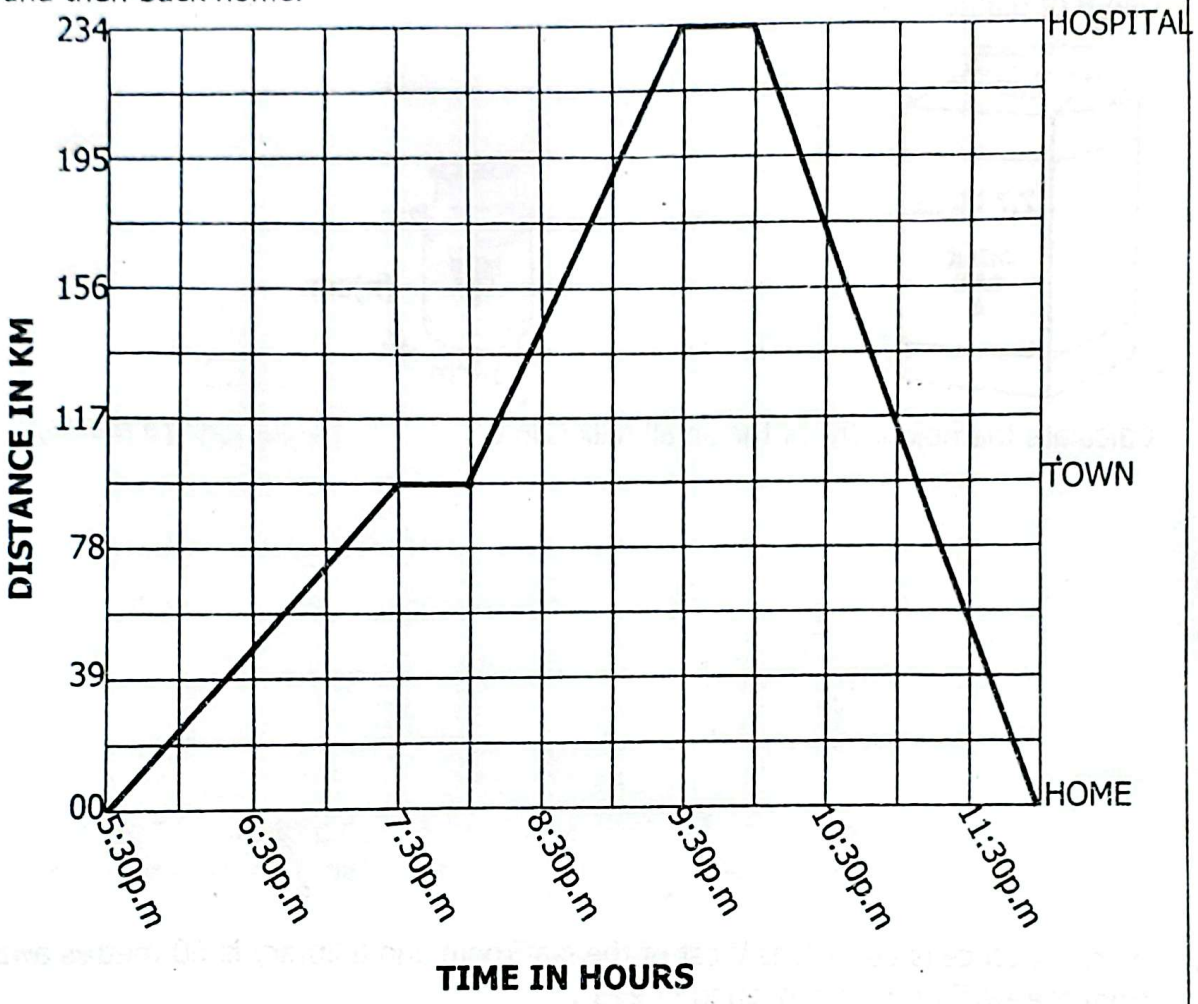
(a) Draw a sketch to show the three places. *(1 mark)*

(b) With the help of a ruler, a pencil, a pair of compasses and a scale of 1cm representing 10m, draw an accurate diagram to locate the three places. *(4 marks)*



*Turn over*

32. The travel graph below shows a teacher's journey from home via town to hospital and then back home.




(a) For how long did he take travelling from town to hospital? *(1 mark)*

(b) How far is the hospital from town? *(1 mark)*

(c) Express his arrival time back home in a 24-hour clock system. *(1 mark)*

(d) Calculate his average speed for the whole journey. *(2 marks)*

*END*